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EXAMINER	
FLANDERS, ANDREW C	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/648,012	WOOLFORK, C. EARL	
	Examiner	Art Unit	
	Andrew C. Flanders	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *11 June 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19-34,37,38 and 41-59* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19-34,37,38 and 41-59* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

Applicant's arguments filed 10 June 2007 have been fully considered but they are not persuasive.

Applicant alleges:

Claim 33 recites:

> ...at least one module adapted to audibly reproduce .said processed CDMA signal, said CDMA communication configuration providing a user with independent audio reproduction free of interference from other users Or wireless devices. (Emphasis added).
>
> The above emphasized claim language is not taught or suggested by Lindemann. Lindemann does not address reproductioh that is interference free. ~~Fnl thermore~~ Furthermore, Applicant observes that Lindemann does not mention interference or address the problem identified by Applicant and thus Applicant's solution to provide a user with independent audio reproduction free of interference from other users or wireless devices. Instead, Lindemann is directed to digital wireless loudspeaker system and the delivery of signals to the speakers. Thus, Lindemann is not directed to a system capable of (1) providing a user with independent audio reproduction; and (2) reproduction free of interference from other users Or wireless devices. By contrast, Lindemann simply provides a "loudspeaker system" where anyone can listen.

Examiner respectfully disagrees. As stated in the rejection, the speakers reproduce audio independently without interference from other speakers. This is more clearly shown in paragraph 66 of Lindemann which states that certain groups of

speakers can be selected and independently operated using Status messages embedded in the audio packet headers and Status decode logic.

The remaining arguments regarding the claims are moot in view of the new rejections necessitated by Applicants amendment.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 30, 53, 56 and 58 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 30 recites that the receiver uses embedded fuzzy logic to enhance detection of the unique user code in said transmitted DSSS signal. However, Applicant's Fig. 1, shows a fuzzy logic detector (61) inside of the receiver unit (50). Receiver unit 50 is fully disclosed in Fig. 3, however, neither the specification, nor the drawings provide any detail as to how any fuzzy logic is used within the components of Fig. 3 to enhance detection of the unique user code.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 33 ~~and~~ 34 and 37-38 are rejected under 35 U.S.C. 102(e) as being anticipated by Lindemann (U.S. Patent Application 2004/0223622).

Regarding **Claim 33**, Lindemann discloses:

A wireless digital audio system (Fig. 15B and Fig 17), comprising:

at least one audio source (Fig. 15B, 133, 134, 135);

at least one digital audio transmitter operatively coupled to said at least one audio source (Fig. 15B 131);

at least one audio receiver adapted for digital wireless communication with said at least one audio transmitter (Fig. 15B, 130 and Fig. 17 300)

each of said at least one digital audio transmitter and receiver being configured for code division multiple access (CDMA) communication (para 0075); and

at least one module adapted to audibly reproduce said processed CDMA signal, said CDMA communication configuration providing a user with independent audio reproduction free of interference from other users or wireless devices (Fig. 15A; the speakers reproduce, which receive the audio without interference from the other speakers).

Regarding **Claim 34**, in addition to the elements stated in the rejection of claim 33, Lindemann further discloses:

At least one module adapted to amplify said processed CDMA signals (Fig. 17 element 301).

Regarding **Claims 37 and 38**, in addition to the elements stated above regarding claims 16 and 17, Lindemann further discloses:

audio source provides analog output in the approximate range of 20 Hz to 20 kHz (i.e. audible range produced by the tweeters and woofers in Fig. 1; provided by the audio source input)

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 19 – 29 and 43 – 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindemann (U.S. Patent Application 2004/0223622) in view of Sato (U.S. Patent 4,970,637).

Regarding **Claim 19**, Lindemann discloses:

A wireless digital audio system (abstract) comprising:

at least one audio source to produce an audio output representative of music (Fig. 5 digital audio sample data);

at least one digital audio transmitter operatively coupled to said at least one audio source (Figs. 4 and 5).11

Lindemann fails to explicitly disclose that the digital audio transmitter comprises:

a first analog low pass filter receiving audio input from said at least one audio source;

a digital low pass filter;

an analog-to-digital converter (ADC) operatively coupled between said first analog and digital low pass filters.

However, Lindemann does disclose inputting a digital audio signal. This signal must have been converted from the analog domain at some point in time. Further, Lindemann discloses a loudspeaker system for a stereo, stereo's are well known to include inputs such as microphones which input an analog audio signal. Filtering and

converting from analog to digital and filtering again is notoriously well known in the art. For example, see Sato Fig.1.

Modifying Lindemann's transmitter to accept an analog input signal and convert it for transmission in the digital domain as taught by Sato discloses:

a first analog low pass filter receiving audio input from said at least one audio source (Sato Fig. 1which receives an analog input);

a digital low pass filter (Fig. 1 element 3; Max filter 3 operates on a digital signal and thus can be considered a 'digital low pass filter');

an analog-to-digital converter (ADC) operatively coupled between said first analog and digital low pass filters (Sato element 2).

It would have been obvious to one of ordinary skill in the art to modify Lindemann to accept an analog signal from a device such as a microphone and use a well known method such as the method taught by Sato. One would have been motivated to use the conversion technique to reduce noise and other errors.

The combination further

a first encoder configured to reduce intersymbol interference (ISI) (Fig. 5 element 502 which is a Reed Solomon Encoder and Interleaver; it is known in the art to configure Reed Solomon encoding/interleaving to reduce ISI as is shown by Roberts 6,418,558. Reducing ISI is a desirable feature to any digital transmission);

a second channel encoder operatively coupled to said first encoder and adapted to reduce transmission errors(Fig. 5 element 500; para 35 which indicates 500 is used for error correction);

a digital modulator operatively coupled to said second channel encoder (Fig. 4 element 405 which includes a 'modulator' and 'DSSS spreader' which indicates these are two separate elements);

a phase shift key a module receiving output from said digital modulator and a unique user code bit sequence (i.e. status messages are included in the transmission frames to control speaker attributes such as speaker group; para 11; and also see paras 64 on discussing channel selection) and being configured for direct sequence spread spectrum (DSSS)communication, said PSK module transmitting a corresponding DSSS signal having said audio output representative of the music and the unique user code bit sequence (Fig. 4 element 405, DSSS spreader using DQPSK or DBPSK; which outputs the music stream along with the status messages).

Lindemann does not explicitly disclose DPSK as claimed, however, DPSK is a notoriously well known alternative for DQPSK. When designing a transmitter, one must balance many various factors and depending on the characteristics desired (number of bits transferred, complexity and arrangement of the constellation), one may decide to implement a DPSK method in place of a DQPSK or DBPSK method.

The combination further discloses:

at least one audio receiver configured for digital wireless communication with said at least one audio transmitter (Fig. 3),

said at least one audio receiver comprising:

a band pass filter (BPF) configured to process said transmitted DSSS signal (BPF not shown in Fig. 3, para 57 of Lindemann);

a direct conversion module receiving output from said BPF and being configured to capture the unique user code bit sequence embedded in said processed DSSS signal (Fig. 3 301-304; directly converts the received signal to be ready for despreading);

a digital demodulator adapted to process output from said direct conversion module (Fig. 3 element 305);

a Viterbi decoder operatively coupled to said digital demodulator and generating a corresponding digital output (Fig. 8, 800);

a source decoder processing said digital output from said Viterbi decoder and being configured to decode the digital signal encoded by said first encoder (Fig. 8, 802).

The combination fails to explicitly disclose a second analog lowpass filter. However, it would have been obvious to provide an analog filter for the desired purpose of smoothing the analog output after a digital to analog conversion. Low pass filtering after a D/A is notoriously well known in the art, see Schotz 5,946,343 Fig. 7B element 218.

The combination further discloses:

a digital-to-analog converter (DAC) operatively coupled between said source decoder and said second analog low pass filter (Fig. 10 element 1005; the analog filter of Schotz being provided after the D/A), said second analog low pass filter generating the audio output representative of the music (i.e. see the above discussion of the second low pass filter); and

at least one module adapted to reproduce said audio output, said audio output representative of said music, if the unique user code bit sequence is recognized (i.e.

enabling a specific group of speakers; para 66) having been wirelessly transmitted from said at least one audio source to a user for private audio reproduction of said music without interference form other users or wireless devices (Fig. 1, the speakers, which receive the audio without interference from the other speakers; further certain groups can be enabled as shown in para 66 and thus can be enjoyed without interference from other speakers and thus can be considered to be private).

Regarding **Claim 20**, in addition to the elements stated above regarding claim 19, the combination further discloses:

wherein said BPF is a wideband BPF (i.e. the band pass filter left out of Fig. 3; para 53; wideband being met by any band that could be considered 'wide'; i.e. a variety of well known configurations and choices available)

Regarding **Claim 21**, in addition to the elements stated above regarding claim 19, the combination further discloses:

wherein said modulator is a 64-Ary modulator (para 36, the modulator uses M-Ary, it is notoriously well known that M can be a variety of numbers depending on the transmission scheme, 64 being one possible obvious choice).

Regarding **Claim 22**, in addition to the elements stated above regarding claim 19, the combination further discloses:

wherein said modulator is a 64-Ary modulator (para 36, the modulator uses M-Ary, it is notoriously well known that M can be a variety of numbers depending on the transmission scheme, 64 being one possible obvious choice; thus the demodulator must operate accordingly)

Regarding **Claim 23**, in addition to the elements stated above regarding claim 19, the combination further discloses:

wherein said generated audio output is in the approximate range of 20Hz to 20kHz (i.e. audible range produced by the tweeters and woofers in Fig. 1).

Regarding **Claim 24**, in addition to the elements stated above regarding claim 19, the combination further discloses:

wherein said spread spectrum signal is transmitted at about 2.4GHz via an omni directional antennal (para 89; omni directional antenna being one of many well known and obvious choices for an annenta such as the one used by Fig. 1).

Regarding **Claim 25**, in addition to the elements stated above regarding claim 19, the combination fails to explicitly disclose the tramission power. However, it is notoriously well known to adjust the transmission power in order to achieve a desired transmission distance. It is well known and obvious that in some modifications/variations, a given distance for Lindmann may only require 100 milliwatts.

Regarding **Claim 26**, in addition to the elements stated above regarding claim 19, the combination further discloses:

Wherein said ADC is a 4-bit analog-to-digital converter (the number of bits in the Lidnemenn system is adjustable as is indicated by para 36-48; 4 being one possible obvious variation/modification).

Regarding **Claim 27**, in addition to the elements stated above regarding claim 19, the combination fails to explicitly disclose wherein said at least one audio source is a portable player. However, Examiner takes official notice that portable audio players, such as CD or MP3 players that produce an analog audio output are notoriously well known in the art. It would have been obvious to add one to the combination to be able to play portable media on a home entertainment center such as the one in the combination.

Regarding **Claim 28**, in addition to the elements stated above regarding claim 19, the combination fails to explicitly disclose wherein said at least one audio reproducing module includes at least one headphone speaker. However, the device does include a transducer/speaker. It is notoriously well known in the art that it is obvious to substitute a headphone/earphone device in place of a speaker in the field of audio reproduction. This is typically done for a variety of reasons, including minimizing disturbance caused to others.

Regarding **Claim 29**, in addition to the elements stated above regarding claim 19, the combination further discloses:

wherein said BPF is operatively coupled to at least one antenna configured to receive said transmitted DSSS signal (BPF not shown in Fig. 3, para 57 of Lindemann).

Regarding **Claims 43, 44 and 49 – 52**, claims 43, 44 and 49 - 52 are met by the rejections of claims 19, 27 and 30 as stated above.

Regarding **Claims 45 and 46**, in addition to the elements stated above regarding claims 43 and 44, Lindemann further discloses:

audio source provides analog output in the approximate range of 20 Hz to 20 kHz (i.e. audible range produced by the tweeters and woofers in Fig. 1; provided by the audio source input).

Regarding **Claims 47 and 48**, in addition to the elements stated above regarding claims 43 and 44, Lindemann does not disclose wherein at least one of said digital audio transmitter and receiver is battery powered. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the speaker reception portion of Lindemann battery powered. One would have been motivated to do so to be able to place and use the speakers in an area where standard power supplies are unavailable (i.e. outdoors).

Claims 30 – 32 and 53 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindemann (U.S. Patent Application 2004/0223622) in view of Sato (U.S. Patent 4,970,637) in further view of Benthin (U.S. Patent 5,790,595)

Regarding **Claim 30**, in addition to the elements stated above regarding claim 19, the combination further discloses:

at least one module adapted to amplify said generated audio output (Fig. 10, 1007 and 1008).

The combination does not explicitly disclose that the receiver utilizes embedded fuzzy logic to enhance detection of the unique user code in said transmitted DSSS signal. However, it is well known to use a fuzzy logic detection system in a receiver such as Lindemann's. Benthin disloses a receiver that determines soft data bits (Figure i, function of Figure 2) for additional decoding performance in communication with the received, demodulated signal (output of II) from a spread spectrum demodulator (II) (col. 2, lines 6-31 col. 5, lines 10-25).

Applying this to the receiver of the combination meets the limitation of the receiver utilizing embedded fuzzy logic to enhance detection of the unique user code in said transmitted DSSS signal..

To one of ordinary skill in the art at the time the invention was made, it would have been obvious to implement the soft decision relevant components of Benethin as part of the encoding and signal reception parts of the system of the combination. The motivation behind such a modification would have been that the soft bit determining

circuitry would have improved the reliability of the decision relating to the hard data bit equivalents of the received information, as is taught by Benethin.

Regarding **Claim 31**, in addition to the elements stated above regarding claim 30, the combination further discloses:

wherein said at least one audio amplifying module includes at least one power amplifier, said at least one power amplifier being configured to provide a low distortion audio signal output (Fig. 10, 1007 and 1008; para 73).

Regarding **Claim 32**, in addition to the elements stated above regarding claim 31, the combination further discloses:

wherein said at least one audio reproducing module includes at least one speaker, said at least one speaker receiving said low distortion audio signal output from said at least one power amplifier (Fig. 1, woofer and tweeter).

The combination fails to explicitly disclose that the speaker is a headphone speaker. However, it is notoriously well known in the art that it is obvious to substitute a headphone/earphone device in place of a speaker in the field of audio reproduction. This is typically done for a variety of reasons, including minimizing disturbance caused to others.

Regarding **Claims 53**, claim 53 is met by the rejection of claim 30 as stated above.

Claims 41 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lindemann (U.S. Patent Application Publication 2004/0223622).

Regarding **Claims 41 and 42**, in addition to the elements stated above regarding claims 33 and 34, Lindemann does not disclose wherein at least one of said digital audio transmitter and receiver is battery powered. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to make the speaker reception portion of Lindemann battery powered. One would have been motivated to do so to be able to place and use the speakers in an area where standard power supplies are unavailable (i.e. outdoors).

Claims 54 ~~and 55~~ 57 and 59, are rejected under 35 U.S.C. 103(a) as being unpatentable over Lavelle (U.S. Patent 6,678,892).

Regarding **Claim 54**, Lavelle discloses:

A wireless digital audio system (Fig. 1B), comprising:

an audio source to provide an audio signal representative of music (i.e. various inputs; col. 4 lines 30 – 40);

a batter powered transmitter (i.e. 510; while not clearly stated, either the entertainment device contains integrated batteries or a vehicle requires a battery to power the various electronic components) coupled to said at least one audio source and operative to transmit a code division multiple access (CDMA) communication signal having said audio signal representative of said music and an added unique user code (i.e. transmitter 510 is connected to the various audio sources in Fig. 1B; it uses CDMA techonology as shown in col. 7; the audio data is superimposed onto a carrier frequency and then tuned into using the deivce via separate selection; this frequency is considered to read upon the unique user code, as it is unique and can allow use by one headphone as desired);

a battery powered audio receiver headphone set opearative to receive the CDMA communication signal and audibily reproduce said ausio dignal representative of said music (headphones 152 and 154), if the unique user code is recognized (i.e. the device is tuned to the specific carrier frequency), to provide a user with prive audio reproduction free of interference form other users of other wireless digital audio music systems in a shared space (col. 7 lines 25 – 33).

Lavelle does not explicitly disclose the audio source coming from an existing analog headphone plug. However, audio sources with headphone plugs are notoriously well known in the art (i.e. iPods etc). Lavelle discloses that other devices may be employed in accordance with the invention; col. 4 lines 35 – 40. It would have been obvious to allow an input for various devices such as iPods and other analog head phone devices. One would have been motivated to do so to make the device

compatible with a widely used portable interface thus allowing user to enjoy their devices within their automobile.

Regarding **Claim 55**, in addition to the elements stated above regarding claim 54 , Lavelle does not explicitly disclose the transmitter having a differential phase shitft keying modulated signal. However, it would have been obvious to one of ordinary skill in the art at the time of the invention to use DPSK in Lavelle. Lavelle discusses that one of ordinary skill in the art will contemplate the various elements required to implement CDMA in an entertainment system according to the invention. When designing a transmitter, one must balance many various factors and depending on the characteristics desired (number of bits transferred, complexity and arrangement of the constellation), one may decide to implement a DPSK method to achieve a certain balance.

Regarding **Claims 57 and 59**, claims 57 and 59 are met by the rejections of claims 54 and 55 as stated above.

Claims 56 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Lavelle (U.S. Patent 6,678,892) in view of Benthin (U.S. Patent 5,790,595)

Regarding **Claims 56 and 58**, in addition to the elements stated above regarding claims 55 and 57:

The combination does not explicitly disclose that the receiver utilizes embedded fuzzy logic to enhance detection of the unique user code in said transmitted DSSS signal. However, it is well known to use a fuzzy logic detection system in a receiver such as Lavelle's. Benthin disloses a receiver that determines soft data bits (Figure i, function of Figure 2) for additional decoding performance in communication with the received, demodulated signal (output of II) from a spread spectrum demodulator (II) (col. 2, lines 6-31 col. 5, lines 10-25).

Applying this to the receiver of the combination meets the limitation of the receiver utilizing embedded fuzzy logic to enhance detection of the unique user code.

To one of ordinary skill in the art at the time the invention was made, it would have been obvious to implement the soft decision relevant components of Benethin as part of the encoding and signal reception parts of the system of the combination. Lavelle discusses that one of ordinary skill in the art will contemplate the various elements required to implement CDMA in an entertainment system according to the invention The motivation behind such a modification would have been that the soft bit determining circuitry would have improved the reliability of the decision relating to the hard data bit equivalents of the received information, as is taught by Benethin.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew C. Flanders whose telephone number is (571) 272-7516. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sinh Tran can be reached on (571) 272-7546. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

acf

SINH TRAN
SUPERVISORY PATENT EXAMINER